

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-27. (Canceled)

28. (Currently Amended) A fixing device comprising:

a heating roller made of a magnetic metal;

a coil comprising a plurality of twisted wires;

an exciting circuit that applies a high-frequency current to the coil;

a core, comprising a heat resistant resin, arranged inside the heating roller,

wherein the core further comprises two grooves, each of the grooves being formed on a surface of the core and run substantially along a longitudinal direction of the core, said two grooves being opposed to each other via the core in a direction perpendicular to the longitudinal direction of the core, and

wherein the coil is wound on the surface of the core, and parts of the coil are buried in the two grooves wherein a distance between the outer surface of the coil wound on the core and the inner surface of the heating roller is substantially constant.

29. (Previously Presented) A fixing device as set forth in claim 28, wherein the two end portions of the coil, which serve as outgoing line portions of the coil going and returning to the core, are taken out of the core with the two end portions being attached to each other.

30. (Previously Presented) A fixing device as set forth in claim 29, wherein the two end portions are parallel to each other.

31. (Previously Presented) A fixing device as set forth in claim 29, wherein the two end portions are twisted.

32. (Previously Presented) A fixing device as set forth in claim 29, wherein the coil is formed of an insulating wire.

33. (Canceled)

34. (Currently Amended) A fixing device as set forth in Claim 28, wherein the core further comprises at least two other grooves, each of the other grooves being formed on a surface of the core in the vicinity of each of two end portions thereof, and

wherein parts of the coil are buried in the two other grooves so that a distance between the outer surface of the coil wound on the core and the inner surface of the heating roller is substantially constant.